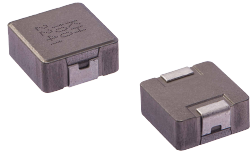




**THE DATASHEET OF  
MDA1350-1R0M**



**MDA Series**  
**SMD Low Profile High Current Molded Inductor**  
**Size 1350**



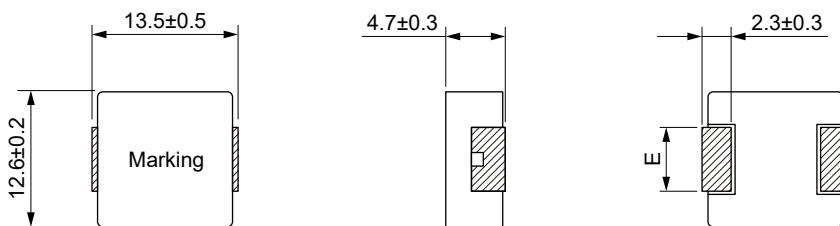
**FEATURES**

- Shielded construction
- Capable of corresponding high frequency .
- Low loss realized with low DCR.
- High performance (Isat) realized by metal dust core.
- Ultra low buzz noise, due to composite construction.
- 100% Lead(Pb)-Free and RoHS compliant.
- AEC-Q200 qualified
- Operating temperature: -55 to +155 °C (including self-temperature rise)
- Quantity: 500PCS

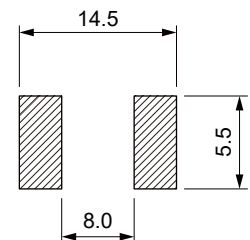
**APPLICATION**

- Headlamps, tail lamps and interior lighting
- HVAC
- Doors, window lift and seat control
- Audio subsystem
- Digital instrument cluster
- In-Vehicle Infotainment and navigation

**Dimensions: [mm]**



**Land Pattern: [mm]**



**Electrical Properties:**

Part No	Inductance @ 100KHz/1V (μH)	Tolerance	Temperature Rise Current Typ. (A)	Temperature Rise Current Max. (A)	Saturation Current Typ. (A)	Saturation Current Max. (A)	DC Resistance Typ. (mΩ)	DC Resistance Max. (mΩ)	E
MDA1350-R22M	0.22	±20%	55.0	50.0	65.0	60.0	0.50	0.61	4.0±0.3
MDA1350-R33M	0.33	±20%	42.0	37.0	65.0	59.0	0.65	0.80	4.0±0.3
MDA1350-R47M	0.47	±20%	38.0	34.0	65.0	58.0	0.77	0.90	4.0±0.3
MDA1350-R68M	0.68	±20%	34.0	31.0	50.0	42.0	1.30	1.55	4.0±0.3
MDA1350-1R0M	1.00	±20%	30.0	27.0	40.0	34.0	1.60	1.90	4.0±0.3
MDA1350-1R5M	1.50	±20%	25.0	22.0	31.0	28.0	3.20	3.80	4.7±0.3
MDA1350-2R2M	2.20	±20%	17.0	15.5	26.0	23.0	4.10	4.80	4.7±0.3
MDA1350-3R3M	3.30	±20%	15.5	14.0	23.0	20.5	6.00	7.00	4.7±0.3
MDA1350-4R7M	4.70	±20%	14.0	12.5	18.5	16.0	8.80	10.2	4.7±0.3
MDA1350-6R8M	6.80	±20%	12.0	11.0	16.5	15.0	13.0	16.0	4.7±0.3
MDA1350-100M	10.0	±20%	10.0	9.0	13.0	10.5	19.2	22.0	4.7±0.3
MDA1350-150M	15.0	±20%	9.40	8.2	11.0	9.2	30.0	36.0	4.7±0.3

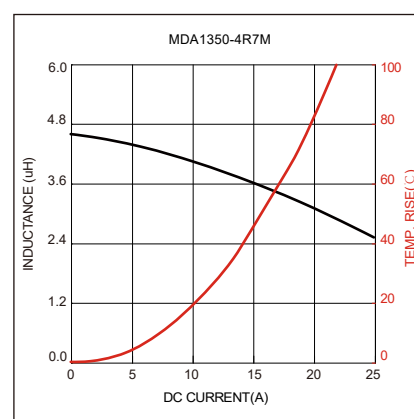
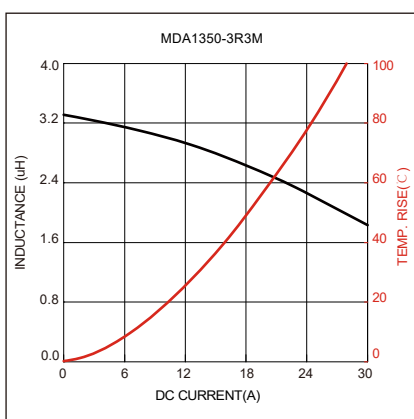
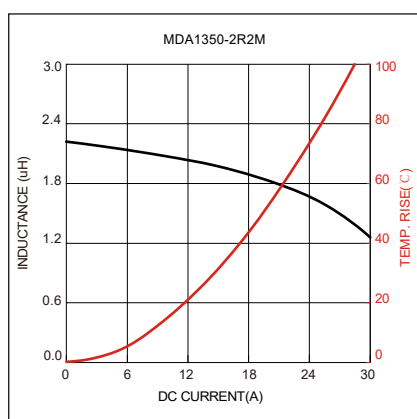
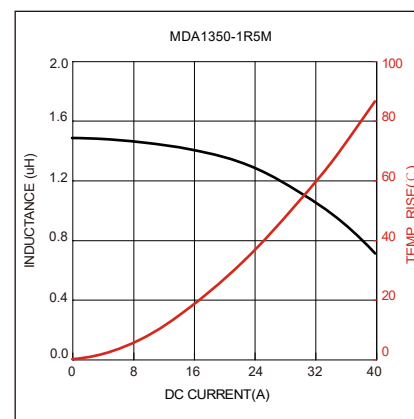
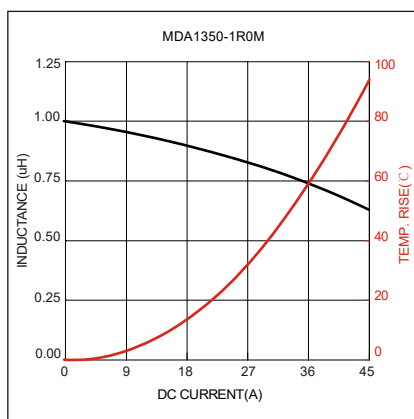
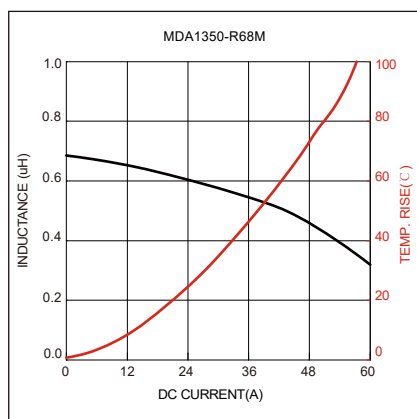
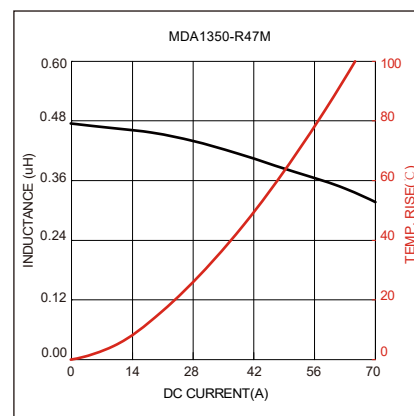
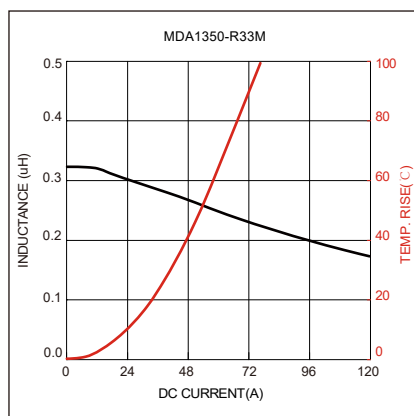
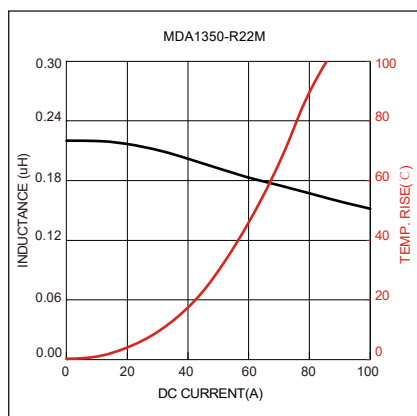
## Electrical Properties:

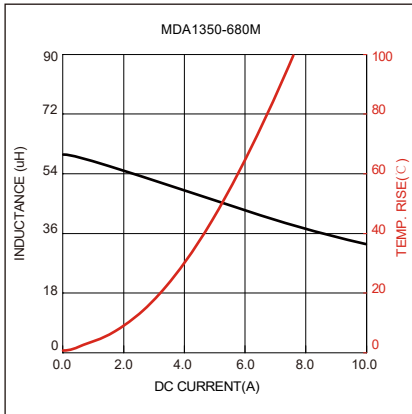
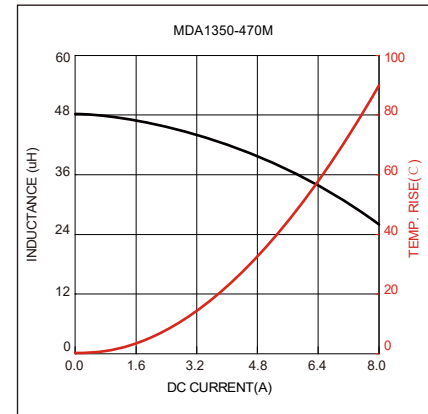
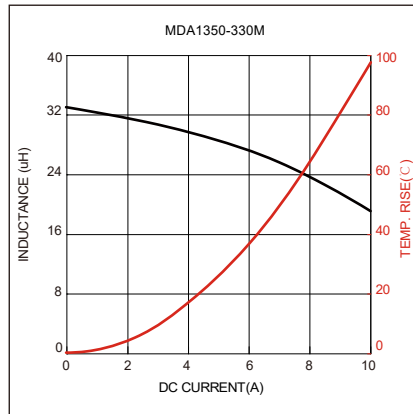
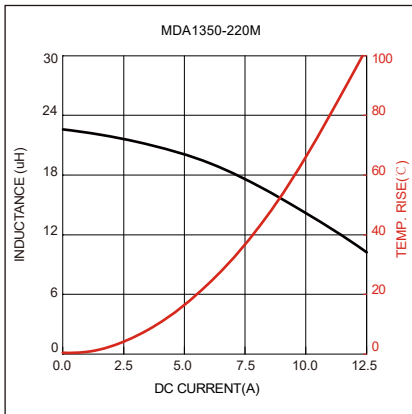
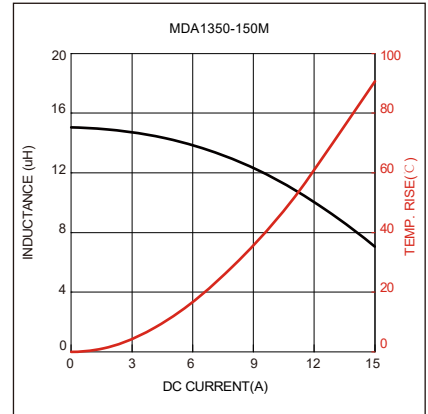
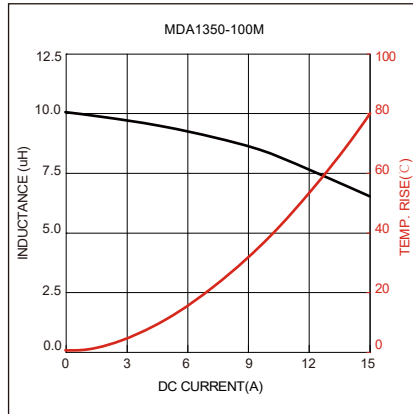
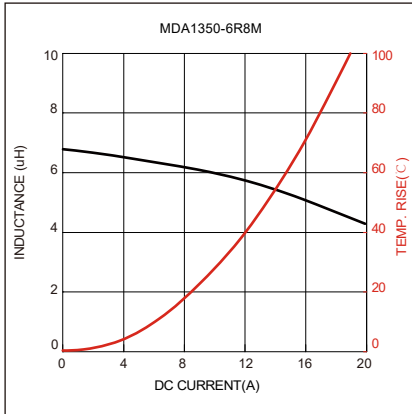
Part No	Inductance @ 100KHz/1V (μH)	Tolerance	Temperature Rise Current Typ. (A)	Temperature Rise Current Max. (A)	Saturation Current Typ. (A)	Saturation Current Max. (A)	DC Resistance Typ. (mΩ)	DC Resistance Max. (mΩ)	E
MDA1350-220M	22.0	±20%	8.00	7.0	8.50	7.5	42.0	52.0	4.7±0.3
MDA1350-330M	33.0	±20%	6.00	5.2	7.30	6.5	66.0	80.0	4.7±0.3
MDA1350-470M	47.0	±20%	5.20	4.3	6.00	5.2	78.0	94.0	4.7±0.3
MDA1350-680M	68.0	±20%	4.30	3.4	5.00	4.0	95.0	132	4.7±0.3

Saturation Current will cause L to drop approximately 30%

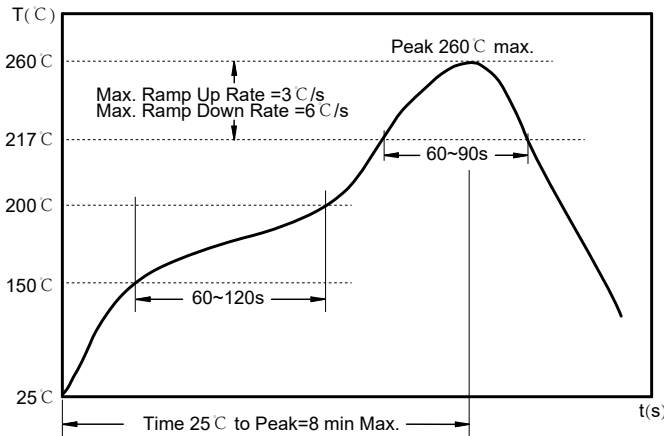
Temperature Rise Current: The actual value of DC current when the temperature rise is  $\Delta T=40^{\circ}\text{C}$

## Typical Electrical Characteristics:





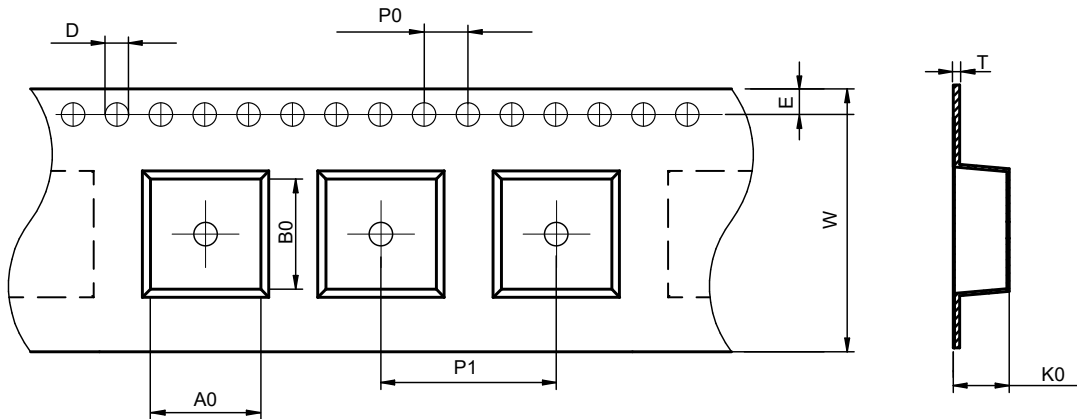
Soldering Reflow:



Preheat condition: 150 ~200°C / 60~120 sec.  
 Allowed time above 217°C : 60~90 sec.  
 Max temperature: 260°C .  
 Max time at max temperature: 10 sec.  
 Allowed Reflow time: 2x max.

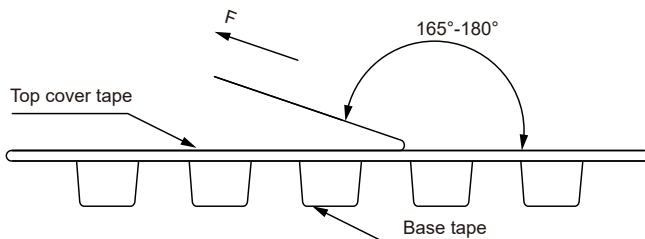
Packaging Information:

Tape Dimension :



Series	A0 (mm)	B0 (mm)	D (mm)	P0 (mm)	P1 (mm)	W (mm)	K0 (mm)	E (mm)	T (mm)
MDA1350	13.1±0.1	14.0±0.1	1.5±0.1	4.0±0.1	16.0±0.1	24.0±0.3	5.4±0.1	1.75±0.1	0.50±0.05

Peel force of top cover tape:

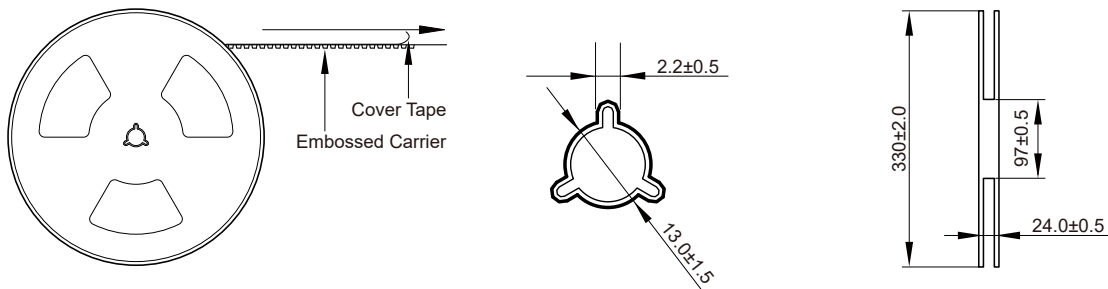


The peel force of top cover tape shall be between 0.1 to 1.3 N

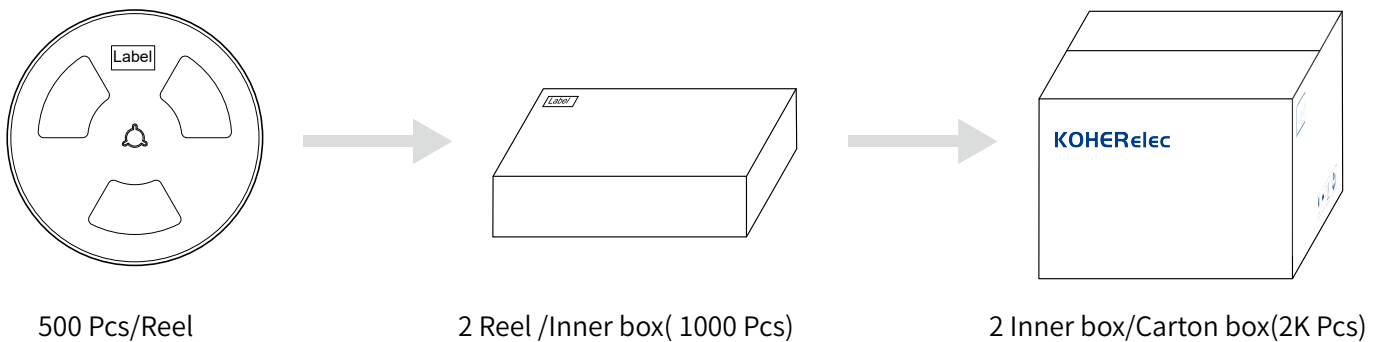
Product Marking:

Marking	KH+Printing (Inductance+period)
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Reel Dimension: [mm]



Packaging Quantity:



Cautions and Warnings:

Storage Conditions :

- The storage period is within 12 months after the completion of production. Be sure to follow the storage conditions (temperature: -5 to 35°C, humidity: 75% RH Max).If the storage period elapses, the soldering of the terminal electrodes may deteriorate.The warranty period is one year.
- Product should not be exposed to environment with high temperature, high humidity, dust, corrosive gas and etc.
- Products should be handled with care to avoid damage or contamination from perspiration and skin oils.
- Please always handle products carefully to prevent any damage caused by dropping down or inappropriate removing.

Operation Instructions:

- Self heating (temperature increase) occurs when the power is turned ON, so the tolerance should be sufficient for the set thermal design.
- Before soldering, be sure to preheat components.The preheating temperature should be set so that the temperature difference between the solder temperature and chip temperature does not exceed 150°C.
- Soldering corrections after mounting should be within the range of the conditions determined in the specifications.If overheated, a short circuit, performance deterioration, or lifespan shortening may occur.
- Generally, Koher might not be familiar with either customer's specific application or actual requests as customer does.As a result customer shall be responsible for checking and confirming whether Koher product with the performance described in the product specification is suitable for using in customer's particular application or not.

## Looking for pricing, stock, or lifecycle information?

Click below to explore more details on WIN SOURCE:

- ⊖ [View MDA1350-1R0M on WIN SOURCE](#)
- ⊖ [KOHERShanghaiElectronics Co.,Ltd Information](#)

## Optimize Your Supply Chain with WIN SOURCE Solutions

- ✓ Global Sourcing Solution
- ✓ Obsolete Management
- ✓ Cost Control Management
- ✓ Shortage Management
- ✓ Alternative Solution
- ✓ Excess Inventory Management